

I claim:

1. Exercise apparatus comprising:  
first and second spaced parallel bars;  
a cylinder having first and second ends;  
the first end of the cylinder connected centrally on the first bar;  
a ram having a piston mounted in the cylinder and having a piston rod connected at a first end to the piston, the piston rod extending through the second end of the cylinder and having a second end connected centrally on the second bar;  
resistance provided between the piston and the first and second ends of the cylinder for resisting movement of the piston and piston rod with respect to the cylinder;  
a grip provided on one of the bars for gripping the one bar with one or two hands of a user; and  
positions provided on another one of the bars for holding the other bar with one or both hands or with body members.
2. The apparatus of claim 1, further comprising fluid in the cylinder on opposite sides of the piston, and wherein the resistance comprises resistance to flow of fluid between opposite sides of the piston as the piston is moved through the cylinder.
3. The apparatus of claim 2, wherein the resistance is adjustable by varying flow rate of the fluid between the opposite sides of the piston.
4. The apparatus of claim 1, wherein the resistance is variable in response to varying force between the bars for

extending the piston rod from the cylinder and moving the piston rod into the cylinder.

5. The apparatus of claim 1, wherein the resistance is variable in response to varying speed between the bars for extending the piston rod from the cylinder and moving the piston rod into the cylinder.

6. The apparatus of claim 1, wherein the fluid is oil and the cylinder is a hydraulic cylinder.

7. The apparatus of claim 1, wherein the fluid is air and the cylinder is a pneumatic cylinder.

8. The apparatus of claim 1, further comprising a flow passage between sides of the piston and a restrictor on the passage for restricting flow.

9. The apparatus of claim 8, wherein the restrictor is adjustable.

10. Exercise apparatus comprising:

a double-acting sealed hydraulic or pneumatic cylinder having opposite first and second ends, the first end being closed and the second end having an opening with a seal for permitting sliding movement of a ram therethrough, and having fluid sealed in the cylinder;

a ram mounted in the cylinder, the ram having a piston on a first end disposed within the cylinder, and the ram having a second end extending from the cylinder for moving the ram and increasing force in a fluid medium in one end of a cylinder and forcing fluid from the one end of the cylinder to the other end;

a passage between the ends of the cylinder and a restriction in the passage for controlling flow of fluid between opposite ends of the cylinder;

a first mounting ring on the first end of the cylinder;

a second mounting ring on the second end of the ram;

a first handle extending through the first mounting ring and having opposite equal length ends of the first handle on opposite sides of the first ring;

a second handle extending through the second ring and having opposite equal length ends of the second handle on opposite sides of the second ring; and

foam padded handle grips, each respectively mounted on the ends of the first and second handles.

11. A method of exercising, comprising gripping handles, relatively moving handles away from and toward each other and directly forcing a ram directly connected to one of the handles into and out of a hydraulic or pneumatic cylinder directly connected to the other one of the handles, and moving hydraulic or pneumatic fluid from one end to the other end of the cylinder with the relative movement of the handles and of the ram and the cylinder.

12. The method of claim 11, wherein the gripping of the handles comprises gripping a first pair of handles on opposite ends of a first bar placed through a first ring on a closed end of the cylinder, and gripping a second pair of handles on

opposite ends of a second bar placed through a second ring on an outer end of the ram.

13. The method of claim 12, wherein the gripping of the first pair of handles comprises placing the first pair of handles under knees of a user in a seated position, and wherein the gripping of the second pair of handles comprises gripping the second pair of handles with hands of a user near a chin and holding the hands in relative position to the chin, moving the first pair of handles by alternately bending a user's trunk forward and raising the trunk against fluid resistance of movement in the cylinder by the ram, thereby exercising the user's abdominal muscles.

14. The method of claim 12, wherein the gripping of the first pair of handles comprises placing the first pair of handles under knees of a user in a seated position, and wherein the gripping of the second pair of handles comprises gripping the second pair of handles with hands, palms facing inward, and holding a user's back straight and elbows stationary, raising and lowering the first pair of handles against fluid resistance of movement in the cylinder by the ram, and exercising the user's biceps.

15. The method of claim 12, wherein the gripping of the first pair of handles comprises placing the first pair of handles under knees of a user in a seated position, and wherein the gripping of the second pair of handles comprises gripping the second pair of handles with hands, palms facing outward, and

holding a user's back straight and elbows stationary, lowering and raising the first pair of handles against fluid resistance of movement in the cylinder by the ram, and exercising the user's triceps.

16. The method of claim 12, wherein the gripping of the first pair of handles comprises placing the first pair of handles under feet of a user in a standing position, and wherein the gripping of the second pair of handles comprises gripping the second pair of handles with hands, palms facing inward and knees slightly flexed, and raising and lowering the second pair of handles by lifting and lowering the user's back against fluid resistance of movement in the cylinder by the ram, exercising back and abdominal muscles in an upright rowing exercise.

17. The method of claim 12, wherein the gripping of the first pair of handles comprises placing the first pair of handles under feet of a user in a seated position, and wherein the gripping of the second pair of handles comprises gripping the second pair of handles with hands behind the user's knees and squatting and straightening the user's legs against fluid resistance of movement in the cylinder by the ram in a squat exercise.

18. The method of claim 12, further comprising gripping the first pair of handles with one hand near the first ring, gripping the second pair of handles with the other hand near the second ring, palms facing inward, and exercising chest and back muscles by pushing the first and second pairs of handles toward each

other and pulling the first and second pairs of handles away from each other against fluid resistance of movement in the cylinder by the ram in chest flies.

19. The method of claim 12, further comprising twisting a collar on the cylinder in staged resistance steps for adjusting resistance in the cylinder.

20. The method of claim 12, further comprising adjusting resistance in the cylinder.